

CITY OF NEWTON

FINANCIAL AUDIT ADVISORY COMMITTEE

ACCOUNTING and AUDIT SUB-COMMITTEE REPORT

THURSDAY, APRIL 23, 2015

Present: Gail Deegan (Chair), Ald. Ruthanne Fuller, Ald. Victoria Danberg, and Anthony Logalbo

Also present: Joseph Mulvey (Chief Information Officer) and David Wilkinson (Comptroller)

Chief Information Officer Joe Mulvey joined the sub-committee for discussion of the management letter comments related to the Information Technology (IT) Department. The city's external auditor commented that the IT Department had not utilized a third-party contractor to conduct tests of the city's IT systems. The auditors recommend that the city consider hiring an independent contractor to assess the vulnerabilities and controls as they relate to the city's IT environment. Mr. Mulvey stated that he agrees with the comments and recommendations.

The city hired a company to do an audit and assessment test of the city's IT security. The assessment and tests did not include the Police and Fire IT systems. The company, Global Digital Forensics, also looked specifically at how the city protects its financial information. Global Digital Forensics tested the city's firewalls and found approximately 15 minor weaknesses including ones related to small applications written in-house with PHP or Drupal.

The applications were all housed in the DM zone of the city's network, which is a less secure area of the network. The DM Zone is a neutral zone located between the city's network and the outside public network. The DM Zone is used to prevent outside users from accessing a server with sensitive city materials. It provides an added layer of protection for the City's data. All of the flagged applications were moved to a virtual server and PHP and Drupal were updated. Any other weaknesses were also addressed.

The IT Department has some issues with the City's web content management software provided by Civica. In the next month, the IT Department will move the City's web content to the Cloud instead of housing it within the City's network. The City will be using Rackspace, as its Cloud provider at a cost of approximately \$400 per month. Rackspace is a highly respected cloud provider.

There is an identified vulnerability known as POODLE in versions of Oracle Software, which is the software the city uses for the Assessor's database. Although there is no opportunity for a hacker to access through Oracle, the City is upgrading its Oracle Software in the next six to seven months.

Mr. Mulvey feels that the City is well protected from data security breaches. He expects to assess and test the City's network each year. It would be helpful to include an assessment of

the Police Department's network each year, as well. Mr. Mulvey would continue to look to an outside company for the assessment, as a company has no preconceptions.

The IT Department does its best to protect all data; however, if you look at the city's data, much of it is public information. Sensitive data like employee social security numbers and health information are very well protected. The City does not have any customer payment information stored in its network. All electronic payments are done by a third-party vendor who must meet payment card industry data security standards. The city's vendor works with a number of other cities and towns.

The city's firewall provides protections but employees are the biggest risk to the city's IT security. Mr. Mulvey would like to develop an education on risk program for all employees. Many employees are unaware that by opening an infected e-mail or going on certain websites open the city up to cyber-attacks. The sub-committee encouraged Mr. Mulvey to educate employees as soon as possible.

None of the city's transactions are done by a single person, which provides checks and balances. The IT Department has installed a dedicated computer for the Treasurer's financial transactions. The dedicated computer's web access is limited to banks and financial investment companies. Comptroller David Wilkinson thinks that the dedicated computer is one of the best security controls that the IT Department has added.

The IT Department's goals run from IT infrastructure improvements to a 21st century City Hall. The IT Department uses dedicated fiber and updates everything on back-up servers at the Ed Center. The City might lose a couple of transactions if there was an automatic switch over to the backup server in the event of a failure of the primary network. Mr. Mulvey feels that there is enough redundancy within the system, which will become more redundant after the new fiber is lit. Members of the sub-committee suggested looking at storage outside of the City for disaster recovery packages.

The sub-committee requested the executive summary of the Global Digital Forensics assessment report. Mr. Mulvey agreed to provide it for the sub-committee report. Mr. Mulvey will continue to work with the Police and Fire IT specialists on an assessment and testing of their networks. He feels that the city is in a good place in terms of funding for information technology.

The Management Letter comment related to the IT Department should be removed in the next year's letter. The comment was made before the assessment was done and the auditors have since been informed.

Respectfully submitted,

Gail Deegan, Chairman